

Application No. 10/027,814
Attorney Docket: 27006-0002
Reply to Office Action of March 2, 2005

REMARKS

In the Office Action dated March 2, 2005, the Examiner: (a) objects to Claims 6 and 13 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim, (b) rejects Claims 2-11 and 13-21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention, (c) rejects Claims 2, 4-6, 10 and 12-17 under 35 U.S.C. § 103(a) as being unpatentable over JP 11-280548 to Onozaki in view of U.S. Patent No. 6,332,556 to Shalman, (d) rejects Claims 1, 2, 4-6, 10, and 12-17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,395,982 to Moller in view of Shalman, (e) rejects Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Onozaki in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15, and 17 above and in further view of U.S. Patent No. 4,296,716 to Hofbauer et al, (f) rejects Claims 7-9 and 18-21 under 35 U.S.C. § 103(a) as being unpatentable over Onozaki in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15, and 17 above and in further view of U.S. Patent No. 4,770,276 to Takubo, (g) rejects Claims 3 under 35 U.S.C. § 103(a) as being unpatentable over Moller in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15, and 17 above and further in view of Hofbauer, and (h) rejects Claims 7-9 and 18-21 under 35 U.S.C. § 103(a) as being unpatentable over Moller in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15, and 17 above and further in view of Takubo. By this response, Applicant amends Claims 6 and cancels Claim 13 to address the rejection under (b) above. Applicant has also amended Claim 16 to further clarify the invention. Claim 16 now clearly states that the channels taper downwardly from the first end wall and the second end wall towards an accumulation area. Applicant has also amended Claim 7 to fix a typographical error. For the reasons stated herein Applicant respectfully submits that each of the pending claims (2-11 and 14-21) are in a condition for allowance.

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A. Rejection Under 37 C.F.R. § 1.75(c)

As originally filed, the Examiner objected to Claims 6 and 13 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of the previous claim. Applicant has amended Claim 6 and cancelled Claim 13 and respectfully submits that this objection is overcome.

B. Rejection Under 35 U.S.C. § 112

The Examiner rejected Claims 2-11 and 13-21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention, stating that the drawings do not show the limitation that "the channels tapering downwardly from... the second end". Applicant respectfully disagrees with the Examiner's rejection. Figure 3 clearly shows the channels 58 tapering downwardly from the second end 12 towards the accumulation area 24. Figure 3 also clearly shows the channels tapering down from end wall 20 to the accumulation area 22. Applicant at Appendix A has included an enlarged Figure 3 for the Examiner's reference. This enlarged Figure 3 is not to be used as a replacement sheet or in any way replace any of the drawings in the currently pending application, however in the enlarged Figure 3 at Appendix A, Applicant has drawn a line approximately parallel to the top edge of the flange 14. As may be seen from this added line, particularly the distance between the arrows at A, as compared to the distance between the area at B, the channels clearly taper downwardly from the second end. Even though the Examiner does not base the rejection on channels tapered downwardly from a first end, Applicant has also added arrows C and D to show that the channels taper from the first end toward the accumulation area in a downward fashion. Applicant respectfully submits that Figure 3 clearly shows the channels tapering downwardly from the second end and therefore this rejection should be withdrawn. Furthermore, in view of amended Claim 16, Applicant points out that Figure 3 also clearly shows the channels tapering downwardly from both the first end wall and the second end wall toward an accumulation area. Applicant also respectfully submits that the specification also clearly describes the tapering. Therefore, Applicant submits that this rejection is overcome and should be withdrawn.

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The Examiner rejected Claim 6 under 35 U.S.C. § 112 for insufficient antecedent basis. Applicant has amended Claim 6 to overcome this rejection and respectfully submits that the rejection is overcome and that Claims 2-11 and 14-21 are in a condition for allowance.

C. Rejection Under 35 U.S.C. § 103(a) Over Onozaki In View Of Shalman

The Examiner rejected Claims 2, 4-6, 10, and 12-17 under 35 U.S.C. § 103(a) as being unpatentable over JP 11-280548 to Onozaki in view of U.S. Patent No. 6,332,556 to Shalman.

Onozaki discloses an Oil Pan Structure for an Engine that improves rigidity of a boundary part of a deep bottom part and a shallow bottom part by integratedly forming reinforcing ribs for connecting a rear wall part of the deep bottom part and a bottom wall part of the shallow bottom part to each other. The Figures do show some grooves in the bottom of the deep bottom part, as pointed out by the Examiner, however Onozaki never discloses, teaches or suggests that these grooves are reinforcing. Furthermore, the reinforcing ribs in Onozaki are needed to support the oil pan wherein the present invention does not need the reinforcing ribs of Onozaki because the channels provide sufficient reinforcement.

In the Office Action, the Examiner indicates that Onozaki discloses an oil pan for an engine compartment comprising a plurality of substantially parallel, spaced apart, reinforcement channels (see Figure 3 bottom grooves) extending from an adjacent first end (23) of the oil pan to adjacent a second end (thinner area) of the oil pan, the channels tapering downwardly from the first end and the second end toward an accumulation area (see, Figure 1 flat circular portion 28) of the oil pan. The Examiner continues by stating that the oil pan has a main body, the main body having two side walls (21, 22), a first end wall (23), and a base (25), and wherein the accumulation area is integral with the base, the oil pan has a region of reduced height and the main body has a second end wall which tapers into the region of reduced height wherein there are no channels in the accumulation area. The Examiner further states that the channels in Onozaki extend up the first end wall but at a reduced height.

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The Examiner admits that Onozaki does not disclose the channel walls along the base are of a height which is less than their height in the region of reduced height. To supplement the deficiencies of Onozaki, the Examiner uses Shalman to show channel walls along a base that of a height which is less than their height in a region of reduced height. The Examiner then states it would have been obvious to one skilled in the art at the time the invention was made to modify the apparatus of Onozaki so as to provide channel walls along the base of a height which is less than their height in the region of reduced height in view of the teachings of Shalman in that such arrangement improves the ability of oil to collect in the reservoir.

Applicant respectfully points out to the Examiner that U.S. Patent No. 6,332,556 to Shalman is not analogous prior art. To rely on a reference under 35 U.S.C. § 103, it must be analogous prior art (MPEP 2141.01(a)).

The courts have generally determined that a reference will be analogous art if: (1) it is of the same field of endeavor as the claimed invention; or (2) it is from a different field of endeavor, but the reference is reasonably pertinent to the particular problem solved by the inventor. *In re Oetiker*, 977 F.2d 1443, 1446-47 (Fed. Cir. 1992); *In re Clay*, 966 F.2d 656, 658-89 (Fed. Cir. 1992). Applicant respectfully submits that Shalman is not in the same field of endeavor as the claimed invention and is not reasonably pertinent to the particular problem solved by the present invention.

First, Shalman is not within the same field of endeavor. As discussed below, the different classifications provide some evidence of non-analogy, such evidence being specifically to the field of endeavor. Applicant respectfully submits that the fields of endeavor as shown by the classification headings, and discussed below, are completely different and strongly support that Shalman and the present invention are not in the same field of endeavor. Furthermore, Shalman is directed to a paint tray assembly with a selectively engageable splash guard for a paint roller. A stackable tray assembly for paint rollers with an inclined surface and a paint reservoir and a splash guard configured for snap-on engagement with any part of the tray is clearly not in the same field of endeavor as an oil pan mounted to

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a lower portion of an engine. One skilled in the art would not be motivated to look at paint trays to solve a problem with oil pans or improve upon an oil pan that is mounted to an engine by reviewing paint trays. Also, in view of the problem to be solved, as discussed below, one skilled in the art would not be motivated to look to the field of paint trays.

Applicant respectfully points out that Shalman is classified in international class B05C 21/00 and U.S. classification 220/570; 220/731; 220/700. As stated in the MPEP and in *In re Ellis*, the Patent Office classifications of references and cross-references in the official search notes of the class definition are some evidence of non-analogy or analogy respectively. MPEP 2141.01(a) 476 F.2d 1370, 1372, 177 U.S.P.Q. 526, 527 (CCPA 1973). In the present case, the publication classification for the international classification and U.S. classification of the present application does not fall within any of the classes in which Shalman was classified or within the classes of the field of search for Shalman. Furthermore, other prior art oil pan references cited by the Examiner do not fall within any of the classes of Shalman. For example, U.S. Patent No. 4,770,276, U.S. Patent No. 4,296,716, and U.S. Patent No. 4,395,982 are all in international class F01M, not B05C of Shalman and primarily in U.S. classifications of Class 123 or 184, not 220 of Shalman. Shalman being non-analogous art is further supported in that under the U.S. classification system, Shalman has been classified in receptacle/paint trays, receptacle container attachment with splatter shield or deflector, and receptacle container attachment rim mounted. None of these classes are in any way related to oil pans for engines. In comparison, the present application has been classified, similar to U.S. Patent No. 4,770,276 in the lubrication-lubricators-drip pans classification. As stated above, not only are the U.S. classes different but the international classification of Shalman is also in a completely different section than the section in which the present application, as well as the other oil pans for engines have been classified. The specific international classification for Shalman is titled accessories or implements for use in connection with applying liquids or other fluid materials to surface and provided in groups B05C 1/00 to B05C 19/00. In comparison, the prior art cited by the Examiner has been generally classified into F01M which is lubricating of machines or engines in general; lubricating

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internal combustion engines; crankcase and ventilating and the present application has been put into international class F16N which is directed to lubricating and more specifically into F16N 31/00 which is directed to means for collecting, retaining, or draining off lubricant in or on machines apparatus. Applicant respectfully submits that the classification for Shalman as compared to the present invention and the other prior art cited by the Examiner (not including Shalman) are of completely different fields and as stated in the MPEP and in *In re Ellis* are of some evidence of non-analogy.

Second, Applicant respectfully submits that Shalman is not reasonably pertinent to the particular problem solved by the present invention. The present invention is directed to an oil pan for an engine with a plurality of substantially parallel spaced apart reinforcement channels extending from an adjacent first end of the oil pan to an adjacent second end of the oil pan. As listed in the background of the invention of the present application, the object of the present invention is to provide an oil pan which (1) has increased structural strength, (2) has improved resistance to noise, vibration, and harshness, and (3) can be manufactured without the use of a third die. Applicant respectfully submits that the paint tray of Shalman in no way is directed to or related to any of the problems which the present invention solves because the paint tray in Shalman is not attached to an engine, does not experience noise, vibration, and harshness issues, and does not need the same structural strength as an oil pan. Furthermore, the paint tray in Shalman does not need to worry about a third die because, as clearly outlined in the disclosure of Shalman, the paint tray is formed from an injection molded plastic. Applicant also respectfully submits that the problem solved by Shalman is in no way related to oil pans much less the problems solved by the present invention. Shalman is directed to a paint roller tray for use with a paint roller and the prevention of paint splashing while the roller is being dipped. Specifically, Shalman is trying to prevent during the procedure of priming the roller with paint, the creation of waves within the reservoir giving rise to a slopping of paint over the edges of the tray. In the present application, the oil pan is connected and sealed to the engine so that there would be no concern of slopping oil over the flange 14. Therefore, Applicant respectfully submits that Shalman is not reasonably pertinent to the problem solved by the present

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invention and that under both parts of the test provided by *Clay*, Shalman is not analogous art to the present invention. Therefore, Applicant respectfully submits that in view of Shalman being non-analogous art to the present invention, Applicant has overcome the Examiner's rejection under items (c), (d), (e), (f), and (h) and that all of the pending claims are allowable over the prior art cited by the Examiner, in that items (c), (d), (e), (f), and (h) all include Shalman as a reference.

Applicant also respectfully submits that even if Shalman was analogous prior art, Shalman does not overcome the serious limitations of Onozaki. Applicant submits that Onozaki (1) does not include reinforcement channels, (2) does not include channels that extend from the first end to the second end, (3) even if the channels extend from the first end to the second end (as defined by the Examiner) then the oil pan would not have a region of reduced height and a main body between said first and second ends, and (4) does not include channels that slope downwardly from the first end wall AND the second end wall to an accumulation area. Therefore, Applicant respectfully submits that the present invention and the pending claims define over Onozaki.

Onozaki does not include reinforcement channels. Instead Onozaki discloses respective reinforcing ribs 11, 12, as shown in all of its Figures (specifically see Figure 1). As disclosed in Onozaki, these "respective reinforcing ribs 11, 12" "improve the rigidity of a boundary part of the deep bottom part 2 and the shallow bottom part 3". The Examiner cites the bottom grooves in Fig. 2 (which are not the reinforcing ribs) as reinforcement channels, however Onozaki never discloses, teaches, suggests or discusses any reinforcement through these channels. Therefore, Applicant submits that the bottom grooves are not reinforcement channels as claimed in the present invention and even if Shalman were analogous art, the present invention as defined in the pending claims, is in a condition for allowance.

Onozaki does not include channels that extend from the first end to the second end, and if the first and second ends were defined as suggested by the Examiner, the oil pan in Onozaki then would not include a base and a region of reduced height between the first and second ends, as defined in amended Claim 16. The Examiner cites the bottom grooves in Figure 3 as the reinforcement channels, which do

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not extend from the first end to the second end in Onozaki. Even if the second end was defined as the thinner area of the oil pan, as suggested by the Examiner, then the thinner portion of the oil pan would not be between the first and second ends as it would be the second end. Amended Claim 16 includes the limitation that the oil pan includes a region of reduced height and a main body between said first and second ends. Therefore, Applicant respectfully submits that in Onozaki the channels do not extend from the first to the second ends, or in the alternative, the oil pan of Onozaki does not include a base and an area of reduced height between the first and second ends. Even if Shalman was analogous art, Shalman does not overcome the deficiencies of Onozaki. Therefore, Applicant respectfully submits that amended Claim 16 and the claims depending therefrom are clearly allowable over Onozaki in view of Shalman.

Applicant has amended Claim 16 to specify that the channels taper downwardly from the first end wall 20 AND the second end wall 26. Therefore, Applicant respectfully submits that Onozaki does not disclose "the channels tapering downwardly from the first end wall and the second end wall towards an accumulation area (see Figure 1 flat circular portion 28)". The channels disclosed in Onozaki do not extend downwardly from the first end wall and the second end wall to the flat circular portion 28. As seen in Figure 2 of Onozaki, the channels extending from the end of the "thinner area" (proximate number 24 of Figure 2 and which the Examiner has called the second end) extend in an upward direction toward both the flat circular portion which is not numbered and the drain 28. Claim 16 requires that the channels taper downwardly from both end walls (23 and 24 in the Onozaki reference) towards the accumulation area. Applicant respectfully submits that, because the channels in Onozaki taper upwardly from one of the end walls (specifically end 24), Onozaki does not disclose and teaches away from the invention as claimed by Applicant in Claim 16. Even if Shalman was analogous art, Shalman does not overcome the deficiencies of Onozaki. Therefore, Applicant respectfully submits that amended Claim 16 and the claims depending therefrom are clearly allowable over Onozaki in view of Shalman. Applicant respectfully submits that the Examiner's rejection of Claims 2, 4-6, 10, and 12-17 under 35 U.S.C. § 103(a) as being unpatentable over JP 11-280548 to Onozaki in view of U.S. Patent No. 6,332,556 to Shalman is overcome

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and that amended independent Claim 16 and the claims depending therefrom are in a condition for allowance.

D. Rejection Under 35 U.S.C. § 103(a) Over Moller In View Of Shalman

The Examiner rejected Claims 1, 2, 4-6, 10, and 12-17 under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 4,395,982 to Moller of U.S. Patent No. 6,332,556 to Shalman.

Moller discloses a casing member for elements of internal combustion engines and more specifically a noise-reducing casing member for oil-containing elements of internal combustion engines. Moller states that the oil pan is formed from a casting to more effectively reduce the noise emissions and more specifically that the casing member is formed with grooved and/or step shaped walls, which allow direct molding and casting without difficulties and the plurality of ribs and corrugations prevent a uniform noise radiation surface and detune the natural frequency of vibrations. As may be seen in Figures 1-3, the channels are interrupted by each step and do not extend continuously from one end to the other end. More specifically, as shown in Figures 2 and 3, the steps inwardly are of about the same thickness as the channels and therefore the channels are interrupted at each step so that multiple small channel segments are formed instead of channels that extend from one end to the other end. In Moller, the channels also do not taper downwardly both from a first end wall (left end in Fig. 1) of the oil pan and from a second end wall of the oil pan (Fig. 1, proximate reference numerals 4, 5, and 6). Instead, the channels taper upwardly (assuming that Moller even has channels on the bottom of the deep part, as no channels are pictured in the figures or discussed in the specification, especially channels having a base, two sides and an open top) from the second end wall to the first end wall.

In the Office Action, the Examiner stated that Moller discloses an oil pan for an engine comprising a plurality of substantially parallel spaced-apart reinforcement channels (U shaped recesses in fig 2) extending from adjacent a first end (left end in fig. 1) of the oil pan to adjacent a second end (right end of fig. 1) of the oil pan, each channel having a base and two sides and an open top, the channels tapering downwardly from the first end to the second end towards and accumulation area (see fig. 2) of

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the oil pan wherein the reinforcement channels are substantially U-shaped. The Examiner admits that Moller does not disclose the channel walls along the base arc of a height which is less than their height in the region of reduced height. To supplement the deficiencies of Moller, the Examiner uses Shalman to show channel walls along a base that of a height which is less than their height in a region of reduced height. The Examiner then states it would have been obvious to one skilled in the art at the time the invention was made to modify the apparatus of Moller so as to provide channel walls along the base of a height which is less than their height in the region of reduced height in view of the teachings of Shalman that such arrangement improve the ability of oil to collect in the reservoir.

As discussed in detail above, Applicant submits that Shalman is not analogous art. Therefore, Applicant respectfully submits that this rejection is overcome and amended independent Claim 16 and the claims depending therefrom are in a condition for allowance.

Even if Shalman was analogous art, it does not supplement the deficiencies of Moller. Moller does not disclose (1) a plurality of substantially parallel, spaced-apart channels extending from adjacent a first end of the oil pan to adjacent a second end of the oil pan, especially in view that the Figures and description do not disclose any channels (as defined in amended Claim 16) along the base of the deep part of the oil pan and (2) channels tapering downwardly from the first and second end walls toward an accumulation area of the oil pan. Moller also does not disclose the limitations in the dependent claims.

Moller does not disclose a plurality of substantially parallel, spaced-apart channels extending from adjacent the first end of the oil pan to adjacent the second end of the oil pan. In Moller, due to the step configuration, the channels do not extend from the first end to the second end. Instead, Moller includes a plurality of channels that end when the pan steps inwardly, as may be clearly seen in Figures 2 and 3. The hidden lines in Fig. 3, representing the channel have approximately the same depth as the base of the channel below and therefore, in Moller, the channels cannot extend from a first end to a second end. Fig. 2 also supports this in that the top view clearly shows the channels ending with each step. Shalman does nothing to supplement this deficiency and therefore, Applicant respectfully submits that

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Claim 16 and the claims depending thereon clearly define over Moller in view of Shalman. Furthermore, Moller does not disclose teach or suggest channels having a base, two sides, and an open top along the base of the deep part of the oil pan, as shown by the flat surface in Fig. 2 for the base and by the dotted line representing the base in Fig. 1.

The channels in Moller also do not taper downwardly from the first end wall and the second end wall towards an accumulation area integral with the base. As shown in Figs. 1 and 2, even if there were channels along the base of the deep part, the channels would taper upwardly from the second end wall (Fig. 1, proximate reference numerals 4, 5, and 6). Therefore, Applicant respectfully submits, that Moller clearly does not include a limitation of amended Claim 16 and that amended Claim 16 and the claims depending therefrom clearly define over Moller in view of Shalman. The dependent claims provide further limitations that further define over Moller in view of Shalman.

Applicant respectfully submits that there is no motivation to combine Shalman with Moller. Moller is directed to oil pans and Shalman is directed to paint trays. One skilled in the art trying to solve the problems listed above would not be motivated to look to paint trays for an oil pan that attaches to an engine. Furthermore, Shalman does not teach the channels as improving the ability of the paint to collect in the lower portion of the reservoir. Instead, the channels referred to by the Examiner as having a height which is less than their height in a region of reduced height are only to stabilize the tray on the ground and are not sloped toward the reservoir. Therefore, in Shalman, the channels serve no function causing the paint to be drawn into the reservoir and therefore, Applicant respectfully submits that the motivation to combine, provided by the Examiner, is not supported by Shalman. The channels in Shalman would have no effect on improving the ability of the oil to collect in the reservoir as they are of a consistent level with the bottom of the pan in Shalman. In fact, the channels in Shalman may have the opposite effect.

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E. Rejection Under 35 U.S.C. § 103(a) over Onozaki in view of Shalman and Hofbauer.

The Examiner rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Onozaki in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15 and 17 above, and further in view of U.S. Patent No. 4,296,716 to Hofbauer et al.

The Examiner states that the above reference combination discloses all of the instantly claimed invention except the reinforcement channels being V-shaped. The Examiner cites Hofbauer as showing reinforcement channels that are V-shaped and states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the channels in a V-shape, since Hofbauer et al. states that such a modification would ensure better cooling of the oil.

Applicant respectfully submits that Shalman is not analogous art and therefore this rejection is overcome.

Applicant further states that Hofbauer does not supplement Onozaki to overcome the deficiencies of Onozaki, discussed in great detail above, and that the combination of Onozaki, Shalman with Hofbauer also does not overcome the deficiencies of Onozaki. Applicant respectfully submits that in view of the remarks above, amended Claim 16 and the claims dependent therefrom clearly define over Onozaki in view of Shalman and in further view of Hofbauer and therefore Claim 16 and the claims depending therefrom are allowable over this combination.

F. Rejection Under 35 U.S.C. § 103(a) over Onozaki in view of Shalman and Takubo.

The Examiner rejected Claims 7-9 and 18-21 under 35 U.S.C. § 103(a) as being unpatentable over Onozaki in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15 and 17 above and in further view of US Patent No. 4,770,276 to Takubo.

The Examiner admits that the combination of Onozaki and Shalman does not disclose the planar portion being adapted to releasably receive thereon a horizontal portion of a substantially L-shaped cover plate and the limitations included in the claims that depend from Claim 7. The Examiner cites Takubo as disclosing a planar portion adapted to releasably receive thereon a horizontal portion of a substantially L-

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shaped cover plate having a substantially upright portion (mid-portion) such that when the cover plate is mounted on the planar portion, the substantially upright portion is substantially coplanar with the end surface. The Examiner further cites Takubo as disclosing a securing flange at the remote end of the horizontal portion, a plurality of bolt holes provided in each of the securing flange and the horizontal portion and wherein bolt holes are not provide in the upright portion.

Applicant respectfully submits that Shalman is not analogous art and therefore this rejection is overcome.

Applicant further states that Takubo does not supplement Onozaki to overcome the deficiencies of Onozaki, discussed in great detail above, and that the combination of Onozaki, Shalman with Takubo also does not overcome the deficiencies of Onozaki. Applicant respectfully submits that in view of the remarks above, amended Claim 16 and the claims dependent therefrom clearly define over Onozaki in view of Shalman and in further view of Takubo and therefore Claim 16 and the claims depending therefrom are allowable over this combination.

G. Rejection Under 35 U.S.C. § 103(a) over Moller in view of Shalman and Hofbauer.

The Examiner rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Moller in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15 and 17 above, and further in view of Hofbauer et al.

The Examiner states that the above reference combination discloses all of the instantly claimed invention except the reinforcement channels being V-shaped. The Examiner cites Hofbauer as showing reinforcement channels that are V-shaped and states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the channels in a V-shape, since Hofbauer et al. states that such a modification would ensure better cooling of the oil.

Applicant respectfully submits that Shalman is not analogous art and therefore this rejection is overcome.

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Applicant further states that Hofbauer does not supplement Moller to overcome the deficiencies of Moller, discussed in great detail above, and that the combination of Moller, Shalman with Hofbauer also does not overcome the deficiencies of Moller. Applicant respectfully submits that in view of the remarks above, amended Claim 16 and the claims dependent therefrom clearly define over Moller in view of Shalman and in further view of Hofbauer and therefore Claim 16 and the claims depending therefrom are allowable over this combination.

H. Rejection Under 35 U.S.C. § 103(a) over Moller in view of Shalman and Takubo.

The Examiner rejected Claims 7-9 and 18-21 under 35 U.S.C. § 103(a) as being unpatentable over Moller in view of Shalman as applied to Claims 1, 2, 4-6, 10, 12-15 and 17 above and in further view of US Patent No. 4,770,276 to Takubo.

Applicant respectfully submits that Shalman is not analogous art and therefore this rejection is overcome.

Applicant further states that Takubo does not supplement Moller to overcome the deficiencies of Moller, discussed in great detail above, and that the combination of Moller, Shalman with Takubo also does not overcome the deficiencies of Moller. Applicant respectfully submits that in view of the remarks above, amended Claim 16 and the claims dependent therefrom clearly define over Moller in view of Shalman and in further view of Takubo and therefore Claim 16 and the claims depending therefrom are allowable over this combination.


In view of the above remarks, Applicant respectfully submits that all of the pending claims are in a condition for allowance. If the Examiner believes that personal communication will expedite prosecution of this application, he is invited to telephone the undersigned at (248) 433-7231.

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Prompt and favorable consideration of this amendment is respectfully requested.

Respectfully submitted,

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Enclosures

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